

What is claimed is:

1. A target for magnetron sputtering, comprising a plurality of species that form a film comprising a material of higher saturation magnetization than that of the species, wherein the target is a sintered target.
2. The target of claim 1, wherein the target is made of at least two kinds of powders of a lower saturation magnetization than that of a film deposited using the target.
3. The target of claim 1, wherein the target sputters to form a film having a substantially uniform thickness and a substantially uniform composition throughout the film.
4. The target of claim 1, wherein the target comprises multiple single-phase regions.
5. The target of claim 4, wherein each single-phase region is less than 1 mm in size.

6. The target of claim 4, wherein each single-phase region is less than 200 μm in size.

7. The target of claim 4, wherein the multiple single-phase regions comprise a phase comprising Fe, Ni, B, Co, Ta, Zr, C or combinations thereof.

8. The target of claim 1, wherein the target is made by a sintering process.

9. The target of claim 8, wherein the sintering process is a hot pressing process or a hot isostatic pressing process.

10. The target of claim 1, wherein the sintered target is formed from a material selected from the group consisting of a simple element, an alloy, a compound and combination thereof.

11. A sputtering method, comprising disposing a substrate opposite a target, applying a magnetic field to the target, applying a sputtering voltage to the target and sputtering a film on the substrate, the target comprising a plurality of species that form a film comprising a material of higher saturation magnetization than that of the species, wherein the target is a sintered target.

12. The method of claim 11, wherein the target is made of at least two kinds of powders of a lower saturation magnetization than that of a film deposited using the target.

13. The method of claim 11, wherein the target sputters to form a film having a substantially uniform thickness and a substantially uniform composition throughout the film.

14. The method of claim 11, wherein the target comprises multiple single-phase regions.

15. The method of claim 14, wherein each single-phase region is less than 1 mm in size.

16. The method of claim 14, wherein each single-phase region is less than 200 μm in size.

17. The method of claim 14, wherein the multiple single-phase regions comprise a phase comprising Fe, Ni, B, Co, Ta, Zr, C or combinations thereof.

18. The method of claim 11, wherein the target is made by a sintering process.

19. The method of claim 18, wherein the sintering process is a hot pressing process or a hot isostatic pressing process.

20. A sputtering source, comprising a magnet and means, made by a sintering process, for sputtering a plurality of species that form a film comprising a material of higher saturation magnetization than that of the species.